

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method of implanting a pressure measurement device in a heart of a patient, comprising the steps of:

providing a pressure sensor assembly comprising a pressure transducer and a pressure transmission catheter, the catheter having a distal end portion, the pressure transducer connected to the catheter proximal of the distal end portion, the distal end portion of the catheter having an opening with a barrier; [[and]]

~~positioning the catheter across a heart wall, with the opening disposed in a chamber of the heart~~

piercing a heart wall of the heart with a trocar to form a hole; and
advancing the distal end portion of the pressure transmission catheter through the
hole so that the opening is disposed in a chamber of the heart.

2. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, further comprising the steps of:

providing an implantable telemetry unit;
connecting the telemetry unit to the pressure sensor assembly; and
implanting the telemetry unit in the patient.

3. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the heart wall includes an epicardial layer, a myocardial layer and an endocardial layer, and wherein the positioning step comprises positioning the catheter across the epicardial layer, myocardial layer and endocardial layer.

4. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the chamber comprises a left ventricle, and wherein the

positioning step comprises positioning the catheter across the heart wall with the opening disposed in the left ventricle.

5. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the chamber comprises a right ventricle, and wherein the positioning step comprises positioning the catheter across the heart wall with the opening disposed in the right ventricle.

6. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the heart wall comprises a septum, and wherein the positioning step comprises positioning the catheter across the septum.

7. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the pressure sensor assembly includes a housing containing the pressure transducer, further comprising the step of securing the housing to the heart wall.

8. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 7, wherein the securing step comprises securing the housing outside the heart.

9. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 7, wherein the securing step comprises securing the housing inside the heart.

10. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the positioning step comprises a surgical approach.

11. (original) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the positioning step comprises a transluminal approach.

12. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the catheter has a proximal portion and a distal portion, wherein the proximal portion is relatively crush-resistant and the distal portion is relatively flexible, and wherein the positioning step comprises positioning the relatively crush-resistant proximal portion in the myocardium and the relatively flexible distal portion in the chamber.

13. (currently amended) A method of implanting a device, comprising the steps of:

providing an implantable device comprising a telemetry unit connected to a pressure sensor assembly connected to a catheter;

piercing a heart wall of the heart with a trocar to form a hole; and

implanting the device such that the catheter extends across [[a]] the hole of the heart wall, with a distal end of the catheter disposed in a chamber of the heart and the pressure sensor assembly connected to the heart wall outside the chamber.

14. (original) A method of implanting a device as in claim 13, wherein the heart wall includes myocardium, and wherein the positioning step comprises positioning the catheter across the entire myocardium.

15. (original) A method of implanting a device as in claim 13, wherein the chamber comprises a left ventricle, and wherein the positioning step comprises positioning the catheter across the heart wall with the opening disposed in the left ventricle.

16. (original) A method of implanting a device as in claim 13, wherein the chamber comprises a right ventricle, and wherein the positioning step comprises positioning the catheter across the heart wall with the opening disposed in the right ventricle.

17. (original) A method of implanting a device as in claim 13, wherein the heart wall comprises a ventricular septum, and wherein the positioning step comprises positioning the catheter across the ventricular septum.

18.-43. (canceled)

44. (currently amended) A method of implanting a pressure measurement device in a heart of a patient as in claim 8, wherein the housing has a tissue [[in growth]] in-growth promoting surface and a tissue in-growth deterring surface, and wherein the securing step comprises securing the tissue [[in growth]] in-growth promoting surface to an epicardial surface of the heart with the tissue [[in growth]] in-growth deterring surface facing a pericardial[[:]] surface of the heart.

45.-47. (canceled)

48. (previously presented) A method of implanting a device as in claim 13, wherein the heart wall comprises a ventricular septum, and wherein the positioning step comprises transvenously navigating the pressure sensor assembly until the catheter is disposed adjacent the ventricular septum, and positioning the catheter across the ventricular septum.

49. (previously presented) A method of implanting a device as in claim 48, wherein the positioning step comprises placing a septal anchor across the ventricular septum with the catheter disposed in the septal anchor.

50. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier is flush with a distal end of the catheter, and wherein the positioning step comprises positioning the barrier carried by the distal end of the catheter in the chamber.

51. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier is recessed from a distal end of the

catheter, and wherein the positioning step comprises positioning the barrier carried by the distal end of the catheter in the chamber.

52. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 51, wherein a dissolvable material is disposed in the distal end of the catheter, and wherein the positioning step comprises positioning the dissolvable material carried by the distal end of the catheter in the chamber.

53.-54. (canceled)

55. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 3, wherein an introducer sheath is initially disposed about the catheter, and wherein the positioning step comprises positioning the introducer sheath and catheter across the myocardium.

56.-59. (canceled)

60. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 11, further comprising the steps of:

providing a catheter;
navigating the catheter through the patient's vascular system and into the patient's heart; and

wherein the positioning step comprises advancing the pressure sensor assembly through the catheter.

61. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 60, wherein the navigating step comprises positioning a distal end of the catheter adjacent a septal wall in the patient's heart.

62. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 61, wherein the distal end of the catheter includes an anchor, further comprising the step of engaging the anchor to the septal wall.

63. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier is compliant.

64. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier comprises a gel.

65. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the barrier comprises a membrane.

66. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 1, wherein the pressure transducer comprises a piezoresistive type transducer.

67. (currently amended) A method of implanting a pressure measurement device in a heart of a patient, comprising the steps of:

providing a pressure sensor assembly comprising a pressure transducer and a pressure transmission member defining a cavity with a distal end portion, the pressure transducer connected to the pressure transmission member proximal of the distal end portion, the distal end portion of the pressure transmission member having an opening with a barrier; [[and]]

~~positioning the member across a heart wall, with the opening disposed in a chamber of the heart~~

piercing a heart wall of the heart with a trocar to form a hole; and
advancing the distal end portion of the pressure transmission member through the
hole so that the opening is disposed in a chamber of the heart.

68. (previously presented) A method of implanting a pressure measurement device in a heart of a patient as in claim 67, wherein the pressure transmission member comprises a tube.

69. (new) The method of claim 1, further including positioning a housing of the pressure sensor assembly so that a tissue in-growth surface of the housing contacts an epicardium of the heart wall.

70. (new) The method of claim 1, further including positioning a housing of the pressure sensor assembly proximate an epicardium of the heart wall and attaching the housing to the heart wall using one or more sutures.